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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,635	12/28/2004	Juha-Pekka Huhtanen	033047/286371	7856

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ALSTON & BIRD LLP  
BANK OF AMERICA PLAZA  
101 SOUTH TRYON STREET, SUITE 4000  
CHARLOTTE, NC 28280-4000

EXAMINER
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FRANCIS, FAYE

ART UNIT	PAPER NUMBER
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3725

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/01/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/519,635

Applicant(s)

HUHTANEN ET AL.

Examiner

Faye Francis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: proper antecedent basis should be provided in the specification for the teaching of the non-concave bevel, as now recited in claims 11-12 and 16-20. No new matter should be entered into the application.
2. The amendment filed 10/25/06 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material, which is not supported by the original disclosure is as follows: the addition of the phrase "non-concave bevel" as now recited in claims 11-12 and 16-20. Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:  
  
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
4. Claims 11-12 and 16-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, i.e., New Matter.

The specification as originally filed does not provide support for the teaching of "non-concave bevel " as now recited in claims 11-12 and 16-20. Accordingly this limitation now added to the claims is considered to be New Matter, since the disclosure only requires that a bevel is convergent, i.e. becomes lower from the incoming direction of the bars of the first refining surface towards the back end of the bar [note top of the page 5] as shown in Figs 5 and 8c. Said differently, although the disclosure shows what that now have been claimed, it does not imply that the beveled surface cannot be concave. Applicant is required to cancel the new matter in the response to this office action.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 11 is rejected as best understood under 35 U.S.C. 102(b) as being anticipated by Cumpston [4,678,127].

Cumpston discloses in Figs 1-8 (also see Figure below wherein the letters A and W have been added by the examiner), a refining surface [Fig 1] of a refiner, the refiner having two opposed refining surfaces coaxially-disposed along an axis, with at least one

of the refining surfaces being configured to rotate about the axis in a rotation direction, the refining surface comprising: a plurality of radially-extending bars [bars 35 and 45] defining grooves between adjacent bars, each bar having a radially-extending length and an angularly-extending width, at least one of the bars including a non-concave bevel [sloped leading surfaces 38 and 48] extending from a leading edge [working edge 37 and 47] of the bar, the leading edge being defined with respect to the interaction of the bevel with the opposed refining surface, the bevel extending across the bar for less than the entire width W thereof [Fig below], the remainder of the width of the bar A being substantially parallel to the refining surface.

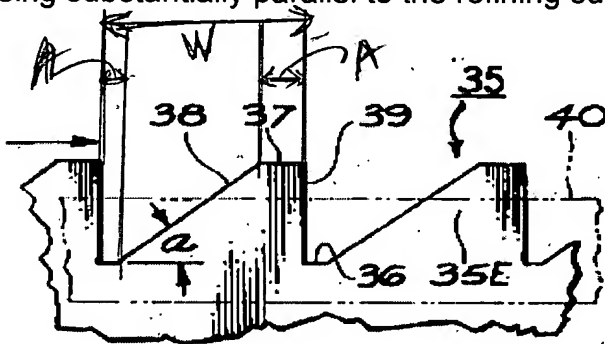


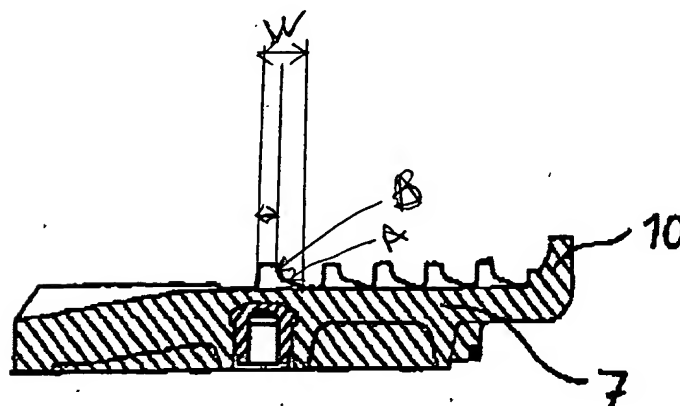
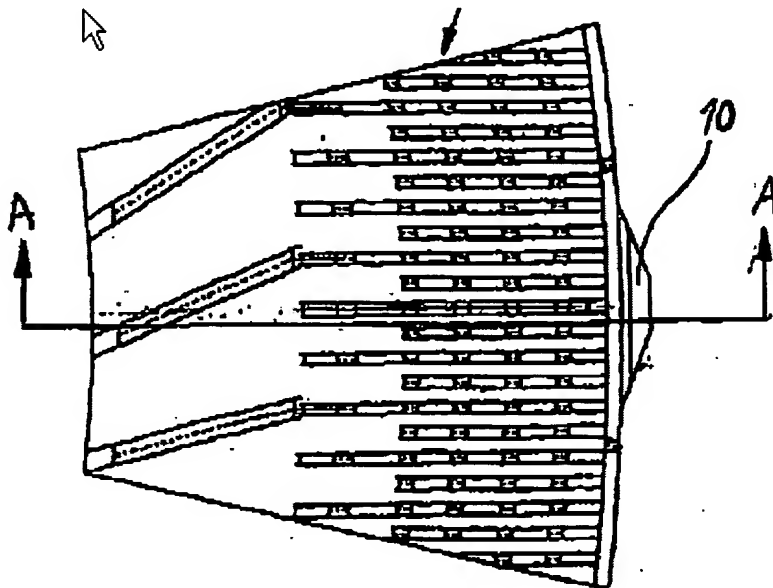
Fig. 6

7. Claim 11 is rejected as best understood under 35 U.S.C. 102(b) as being anticipated by Virving [Us 2003/0183712].

Virving discloses in Figs 1-4 (also see Figure below wherein the letters A and W have been added by the examiner), a refining surface of a refiner [Figs 2-3], the refiner having two opposed refining surfaces coaxially-disposed along an axis, with at least one of the refining surfaces being configured to rotate about the axis in a rotation direction, the refining surface comprising: a plurality of radially-extending bars defining grooves

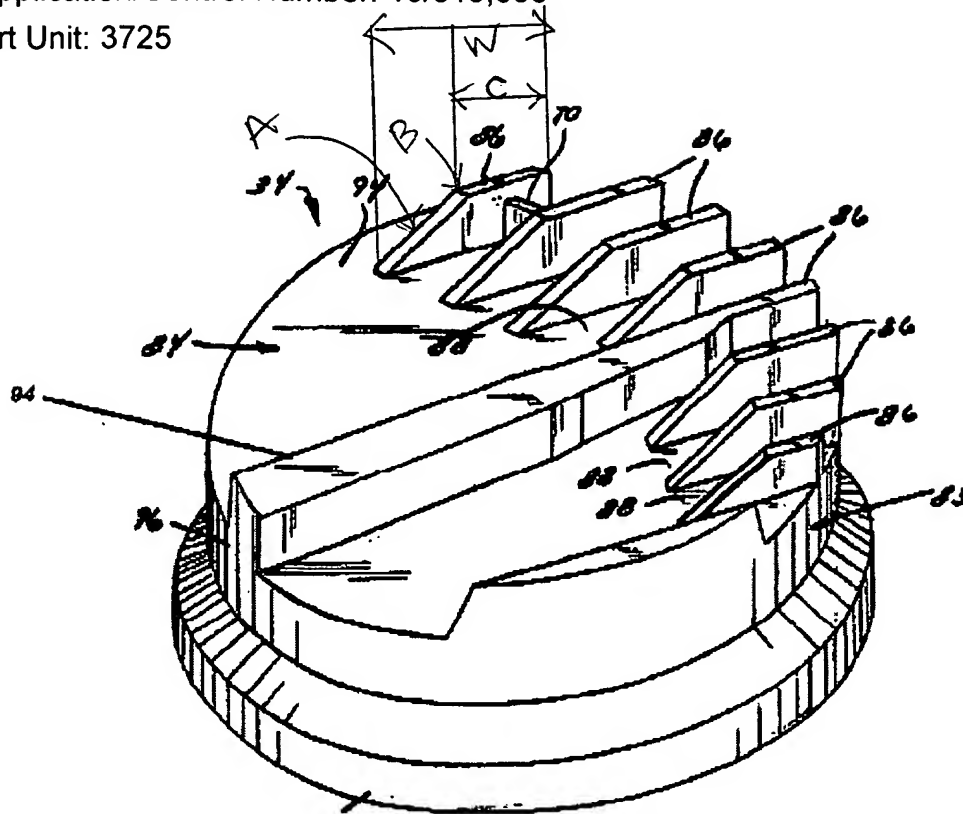
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between adjacent bars, each bar having a radially-extending length and an angularly-extending width, at least one of the bars including a bevel A extending from a leading edge B of the bar, the leading edge being defined with respect to the interaction of the bevel with the opposed refining surface, the bevel extending across the bar for less than the entire width W thereof [Fig below], the remainder of the width of the bar being substantially parallel to the refining surface.



8. Claim 11 is rejected as best understood under 35 U.S.C. 102(b) as being anticipated by Johansson et al. [US 2002/0070303], hereinafter Johansson.

Johansson discloses in Figs 1-3 (also see Figure below wherein the letters A-C and W have been added by the examiner), a refining surface [Fig 3] of a refiner, the refiner having two opposed refining surfaces coaxially-disposed along an axis, with at least one of the refining surfaces being configured to rotate about the axis in a rotation direction, the refining surface comprising: a plurality of radially-extending bars 86 defining grooves between adjacent bars, each bar having a radially-extending length and an angularly-extending width, at least one of the bars including a non-concave bevel A extending from a leading edge B of the bar, the leading edge being defined with respect to the interaction of the bevel with the opposed refining surface, the bevel extending across the bar for less than the entire width W thereof [Fig below], the remainder of the width of the bar C being substantially parallel to the refining surface.



### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to



consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Cumpston or Virving or Johansson.

The limitations of these claims would have been obvious modifications by one skilled in the art once the basic apparatus was known depending closely on the nature of the objects to be processed or obvious design choice, as it solves no stated problem and of no patentable merit [see subsection [0025]].

#### ***Response to Arguments***

12. Applicant's arguments with respect to claims 11-20 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faye Francis whose telephone number is 571-272-4423. The examiner can normally be reached on M-F 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lowell Larson can be reached on 571-272-4519. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Faye Francis  
Primary Examiner  
Art Unit 3725

FF